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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,448	12/07/2001	Keisuke Asami	10830-082001/A36-137195M/	5082

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FISH & RICHARDSON P.C.  
45 ROCKEFELLER PLAZA, SUITE 2800  
NEW YORK, NY 10111

EXAMINER

VY, HUNG T

ART UNIT PAPER NUMBER

2828

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/008,448

Applicant(s)

ASAMI, KEISUKE

Examiner

Hung T Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
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## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

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### **DETAILED ACTION**

1. In response to the communications dated 12/07/2001, claims 1-7 are pending in this application.

### **Foreign Priority**

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/21/2000.

### **Specification**

3. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **Claim Rejections - 35 U.S.C. § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 3-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over admitted prior art (Admission) in view of Funakawa, Pub. U.S. No. 2001/0036218 (Japan Patent No. P.2000-127911) or Vihelmsson et al., Pub. No. 2002/0024979 (Sweden Patent No. 9900602-5).

Regarding claims 1, 3, 6, Admission discloses a wavelength tunable light source comprising: a semiconductor laser (1) in which one of end surface is applied an anti-reflection film; a lens (5,6); a wavelength selection portion including a diffraction grating (2) and a mirror (3); and a motor(23), wherein a light beam is emitted from the one of end surfaces; the lens collimates the light beam; the wavelength selection portion selects a light beam having desired wavelength from the collimated light beam to return the selected light beam to the semiconductor laser so that laser oscillation occurs; a center of rotation of the mirror is provided in a position where mode hopping is suppressed when a wavelength in the laser oscillation is tuned (See fig. 7,8), but Admission does not disclose a rotation of the mirror is driven by direct drive system by using the motor having a rotation shaft in the center of rotation of the mirror. However, Funakawa discloses a rotation of the mirror is driven by direct drive system by using the motor (12) having a rotation shaft (11) in the center of rotation of the mirror (See fig 7) or Vilhelmsson et al. discloses a rotation of the mirror is driven by direct drive system by using the motor (374,370 and 376,372 work as motor) having a rotation shaft (360) in the center of rotation of the mirror (See fig. 1, 2, 3).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Admission to have rotation of the mirror is driven by a direct system by using the motor having a rotation shaft in the center of rotation of the mirror as taught by Funakawa or Vilhelmsson et al. because those skilled in the art will recognize that such modification and variations can be made to get continuous wavelength scanning without departing from the spirit of the invention.

Regarding claim 4-5 and 7, Admission discloses the claimed invention except for the motor is a servo-motor, or a voice coil motor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a servo-motor, or a voice coil motor, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

5. Claim 2 is rejected under 35 U.S.C. 103 (a) as being unpatentable over admitted prior art (Admission) in view of Funakawa, Pub. U.S. No. 2001/0036218 (Japan Patent No. P.2000-127911) or Vilhelmsson et al., Pub. No. 2002/0024979 (Sweden Patent No. 9900602-5) and further in view of Asami, U.S. Patent No. 6,295,306.

Regarding claim 2, Admission and Funakawa or Vilhelmsson et al. disclose all limitation of the wavelength tunable light source except an optical branching device provided between the semiconductor laser and the diffraction grating but Asami disclose an optical branching device provided between the semiconductor laser (210) and the diffraction grating (250) for taking out a part of the selected light beam, wherein the light beam taken out by the optical branching device is used as an output light beam

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(261)(See fig 2). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Admission and Funakawa or Vilhelmsson et al. to have an optical branching device as taught by Asami because those skilled in the art will recognize that such modification and variations can be made to get continuous wavelength scanning without departing from the spirit of the invention.

### **Citation of Pertinent References**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Tuganov et al. discloses Open Loop Wavelength Control system For A Tunable Laser, U.S. Patent No. 6,434,173.

### **Conclusion**

7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759.

The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If


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attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hung T. Vy  
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**April 25, 2003.**

  
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